

**REMARKS**

This response is filed in response to the final Office Action dated October 31, 2006. This application should be allowed and the case passed to issue.

Claims 1-24 are pending in this application. Claims 11-24 were withdrawn pursuant to a restriction requirement. Claims 1-10 have been rejected.

***Election of Species***

Applicants respectfully request rejoinder and examination of the claims of Species (b) (claims 11-19) upon the allowance of a claim from Species (a).

***Claim Rejections Under 35 U.S.C. § 103***

Claims 1-10 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Shimizu et al. (U.S. Pat. Pub. No. 2002/0160232) in view of Selwyn et al. (U.S. Pat. Pub. No. 2006/0048893). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison between the invention, as claimed, and the cited prior art.

An aspect of the invention, per claim 1, is a method of manufacturing granular perpendicular magnetic recording media comprising sequential steps of providing a non-magnetic substrate including a surface. A layer stack is formed on the surface of the substrate. The layer stack includes a granular perpendicular magnetic recording layer having an exposed upper surface. A plasma is generated containing at least one ionized oxygen species derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element. The exposed upper surface of the granular perpendicular magnetic recording layer is treated with the plasma to form an oxidized surface layer.



The Examiner asserted that Shimizu et al. discloses a method of manufacturing granular perpendicular magnetic recording material. The Examiner acknowledged that Shimizu et al. do not disclose the plasma containing at least one oxygen species derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element. The Examiner asserted that Selwyn et al. (paragraph [0010]) discloses oxygen plasma reaction and that it would have been obvious to include such because of the advantages taught by Selwyn et al. The Examiner further argued that the first paragraph of page 4 of the parent application (10/208,124) (the '124 application) of Selwyn et al. substantially discloses paragraph [0010] of the CIP.

The combination of Shimizu et al. and Selwyn et al. does not suggest the claimed method because Selwyn et al. cannot be relied on as prior art to the claimed method. Selwyn et al. has a filing date of May 11, 2005, whereas the present application was filed November 6, 2003. Thus, Selwyn et al. is not prior art.

Though, Selwyn et al. is a continuation-in-part of the '124 application, the '124 application does not suggest generating a plasma containing at least one ionized oxygen species **derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element**, as required by claim 1.

Therefore, Selwyn et al. is not prior art, and the combination of Shimizu et al. and Selwyn et al. does not suggest the claimed method.

Applicants agree that paragraph [0010] of Selwyn et al. is substantially supported in the parent application. Applicants disagree, however, that paragraph [0010] of Selwyn et al. or the first paragraph of page 4 of the '124 application disclose or suggest generating a plasma containing at least one ionized oxygen species **derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element**, as required by claim 1.



Paragraph [0010] states "the hardened photoresist is no longer a purely organic compound capable of reaction with **oxygen plasmas** to form volatile etch **products**, such as CO, CO<sub>2</sub> and H<sub>2</sub>O" (emphasis added). The listed compounds are products of the reaction of the oxygen plasma and the photoresist. There is no suggestion that the oxygen plasma used to form the volatile etch products is derived from a source gas comprised of oxygen and at least one other non-metallic element. Paragraph [0010] of Selwyn et al. teach that the oxygen plasma etches the photoresist to form a compound containing oxygen, not that the oxygen plasma contains at least one ionized oxygen species that is derived from a source gas comprised of a compound of oxygen. Selwyn et al. disclose that oxygen plasma reacts with the photoresist to form a product which is a compound of oxygen, not that the plasma contains at least one ionized oxygen species that is **derived from a source gas comprised of a compound of oxygen and at least one other non-metallic element**, as required by claim 1. The '124 application does not suggest the **source gas** of the plasma is a compound of oxygen and at least one other non-metallic element, rather the '124 application discloses a product of the plasma and the photoresist that is a compound of oxygen. The only oxygen containing source gas of the plasma suggested by the '124 application is molecular oxygen, O<sub>2</sub>, (see Example, page 17, lines 15-20; and claims 11, 20, and 27), which is clearly not a compound of oxygen and at least one other non-metallic element, as required by claim 1.

The instant claims are further distinguishable over Shimizu et al. and Selwyn et al. because there is no suggestion to combine Shimizu et al. and Selwyn et al., as averred by the Examiner. Shimizu et al. is directed to depositing an oxidized surface layer, while Selwyn et al. is directed to ashing (removal) of a layer. Shimizu et al. and Selwyn et al. are directed to opposite functions. Shimizu et al. teaches depositing layers and Selwyn et al. teaches removing



layers. Thus, Shimizu et al. and Selwyn et al. are directed to non-analogous arts. One of skill in the art looking to solve a problem involving deposition of an oxide surface layer would not look towards the teaching of Selwyn et al. involving removal (ashing) of layers.

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding these remarks or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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